

Notice of Allowability

Application No.

09/258,600

Examiner

David A. Lambertson

Applicant(s)

FOWLKES ET AL.

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1636

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the reponse filed 20 October 2004.
2. ☒ The allowed claim(s) is/are 44-102 and 109.
3. ☒ The drawings filed on 15 May 2003 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

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EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Information Disclosure Statement

The information disclosure statement filed October 20, 2004 has been considered, and a signed and initialed copy of the form PTO-1449 is attached to this Office Action. It is noted that references AA-AG are crossed through. These references are patent applications, which will not be printed on the face of an issued patent; however, the Office has considered these applications during the examination of the instant application. It is additionally noted that BF is crossed through because the reference had already been considered on the merits in a previous PTO-1449.

Specification

The Office acknowledges the amendment to the priority claim as presented on page 2 (box 8) of the Transmittal sheet. The amendment has been amended to update the status of US Application 08/322,137 as US Patent 6,100,042.

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The Office additionally acknowledges the amendments to the specification filed on May 15, 2003 and November 11, 2003, wherein sequences have been appropriately matched with sequence identifiers. However, additional amendments to the specification are required.

The application has been amended as follows:

On page 18 of the specification as filed on May 15, 2003, please make the following amendment beginning at line 1:

Figure 1 (Panels A-C). Outline of successive stages in the development of yeast autocrine systems. An outline of the normal synthesis and release of mating pheromones is diagrammed in the upper left. Two genes, MF α 1 and MF α 2, encode precursor proteins (MF α 1p and MF α 2p) containing four and two repeats, respectively, of the tridecapeptide representing mature α -factor. These precursors are processed proteolitically in a series of enzymatic reactions that begin with cleavage of the signal sequence in the endoplasmic reticulum and involve both glycosylation of the leader peptide and cleavage by the proteases KEX2p, STE13p, and KEX1P. The result is the secretion of mature α -factor which, upon binding to STE2p normally expressed on the surface of a cells, elicits a number of changes in the a cells, including growth arrest. The a cells, in turn, express two genes, MFa1 and MFa2, which encode precursors (MFa1p and MFa2p) for a-factor. These precursors undergo farnesylation by RAM1 and RAM2, proteolytic trimming of the C-terminal three amino acids (by a protein tentatively identified as RAM3p), carboxymethylation of the newly exposed C-terminal cysteine by STE14p, and endoproteolytic removal of the N-terminal leader sequence by an activity provisionally identified as STE19p. Upon export of the

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mature a-factor from the cell via STE6p, it binds to STE3p expressed on the surface of α cells and stops their growth.

On page 23 of the specification as filed on May 15, 2003, please insert "(SEQ ID NO: 121)" after the sequence LLLLGAGES, located in the description of Figure 11.

On page 43 of the specification as filed on May 15, 2003, please insert "(residues 33-41 of SEQ ID NO: 82)" after the sequence LEKQRDKNE.

On page 45 of the specification as filed on May 15, 2003, please insert "SEQ ID NO: 120" after the sequence LLLLGAGESG.

On the first page of the claims, please substitute "What is claimed is:" for the term "CLAIMS."

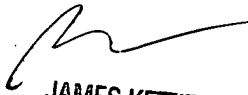
Any inquiry concerning this communication or earlier communications from the examiner should be directed to David A. Lambertson whose telephone number is (571) 272-0771. The examiner can normally be reached on 6:30am to 4pm, Mon.-Fri., first Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Remy Yucel, Ph.D. can be reached on (571) 272-0781. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

David A. Lambertson, Ph.D.
AU 1636



JAMES KETTER
PRIMARY EXAMINER